PG&E Corporation

Enterprise Risk Management/
Enterprise Risk Management Committee
Meeting Agenda
January 26, 2007, 2:00 p.m. – 3:30 p.m.
Board Room, One Market

ERM Committee Members

Peter A. Darbee
Kent M. Harvey*
Christopher P. Johns
Thomas B. King
Bill T. Morrow
Hyun Park

*Committee Chair

Standing Guests

Hudson Martin, *Director, Enterprise Risk Management and Insurance, PG&E Corporation*

Jon Frisch, *Principal Risk Manager, Enterprise Risk Management and Insurance, PG&E Corporation*

Invited Guests

Jeff Butler, *Senior Vice President, Energy Delivery, Pacific Gas and Electric Company*

Roy Kuga, *Vice President Energy Supply, Pacific Gas and Electric Company*

Fong Wan, *Vice President, Energy Procurement, Pacific Gas and Electric Company*

Lise Jordan, *Director, Resource Strategy and Initiative Management, Pacific Gas and Electric Company*

Todd Strauss, *Senior Director, Energy Policy, Planning, and Analysis, Pacific Gas and Electric Company*

Martin Wyspianski, *Associate, Renewable Supply, Pacific Gas and Electric Company*

Time	Item	Order	Presenters	
2:00 p.m.	ERM status update	1	Hudson Martin	Information only
2:05 p.m.	Gas and Electric Transmission and Distribution System Safety	2	Jeff Butler Lise Jordan	Information only
	[Mr. Butler, Ms. Jordan, Mr. Martin and Dr. Frisch leave the meeting and Mr. Kuga, Mr. Wan, Dr. Strauss and Mr. Wyspianski enter the meeting]			
3:00 p.m. .	Natural Gas Supply (Executive Session)	3	Fong Wan Todd Strauss Martin Wyspiansk	Information only

Enterprise Risk Management

Gas and Electric Transmission and Distribution System Safety Risk Review

January 26, 2007

Contents

- Risk Definition, Scope and Key Assumptions
- Impact Analysis
- Interrelated Risks
- Risk Ownership and Responsibility
- Risk Families and Drivers
- Gap Assessment Process and Current Risk Management Activities
- Additional Planned Risk Management Activities
  - Gas Transmission and Distribution (T&D)
  - Electric T&D
  - Emergency Response
  - Key Information Sources

Risk Definition

A **system condition** that PG&E knows, or should reasonably know, could cause a **hazardous event,** but does not take expeditious or sufficient action to mitigate that risk.

System condition: Any condition associated with gas or electric transmission and distribution (T&D) facilities that poses a threat to public/employee safety.

Hazardous Event: Includes events that pose significant safety risk to employees and the public e.g., fire/explosion, and health threats e.g., environmental incidents, asphyxiation, or electrocution.

Risk Scope

In scope:

All gas and electric transmission, distribution, substation and regulating facilities including:

- Design, procurement, construction, maintenance and emergency response
- Operating practices and procedures
- Risks identified through experience (events) and key sources of information
- Risks identified by other utilities
- Risks identified by regulatory agencies

Out of scope:

- Unforeseeable events that are externally caused and outside our control.
- All natural hazards, with the exception of seismic. Consideration of seismic risk is limited to the adequacy of design of T&D assets.

Impact Analysis

- Financial exposure from $100 million - $500 million

  and/or

- Significant injury, illness or environmental impact

  and/or

- National or international attention resulting in a severe negative consequence to the Company's image or reputation with regulators, customers, or general public as a result of regional attention.

Interrelated Risks

- Cover-up
- Disaster Recovery/Business Continuity Plan
- Electric Distribution System
- Electric Transmission System
- Environmental
- Natural Hazards other than Earthquakes
- Political/Regulatory Environment
- Seismic
- Urban Wildland Fire

Risk Ownership and Responsibility

Risk Owner	Supporting Officers	Risk Manager	Analysis Team
Jeff Butler	Stewart Ramsay	Lise Jordan	Rebecca Hardie Rich Kauzer Orville Plum Charlie Poston Ken Pritten Mark Sweeney Chris Warner

Risk Families

- Gas T&D
- Electric T&D
- Emergency Response
- Key Information Sources*

* Internal/External sources of data relevant to potential risks associated with the Gas & Electric Transmission & Distribution systems.

Risk Drivers - Gas T&D

- Operations or Maintenance
  - operations or controller error results in over-pressurization of a low-pressure system
- Design
  - Engineering/Operations' technical expertise is inadequate due to loss of institutional knowledge
- Material and Equipment
  - weld seam failure in a high consequence area
- Construction
  - fatalities due to a PG&E service line directionally drilled through an existing sewer
- Corrosion
  - internal corrosion rupture on a local transmission line in a high consequence area
- Excavation Damage
  - mis-marked facilities cause a dig-in fatality
- Ground Movement
  - response or preparedness for a significant seismic event is inadequate
- Other Outside Force
  - over-pressurization caused by vandalism at facility with inadequate security
- Management Decisions
  - program commitments are not fulfilled
- Gas Quality
  - composition or contamination impacts facilities or customers

Risk Drivers - Electric

- Operations or Maintenance
  - deteriorated crossarm breaks, causing energized conductor to fall
- Design
  - connector used in non-recommended application fails, causing energized conductor to fall
- Material and Equipment
  - malfunctioning pressure relief valves on subsurface transformers leads to catastrophic failure
- Construction
  - non-conformance to standards or poor workmanship causes incident
- Ground Movement
  - unrestrained equipment in substation causes an extended outage
- Other Outside Force
  - repeated car-pole accidents at the same location
- Management Decisions
  - program commitments are not fulfilled

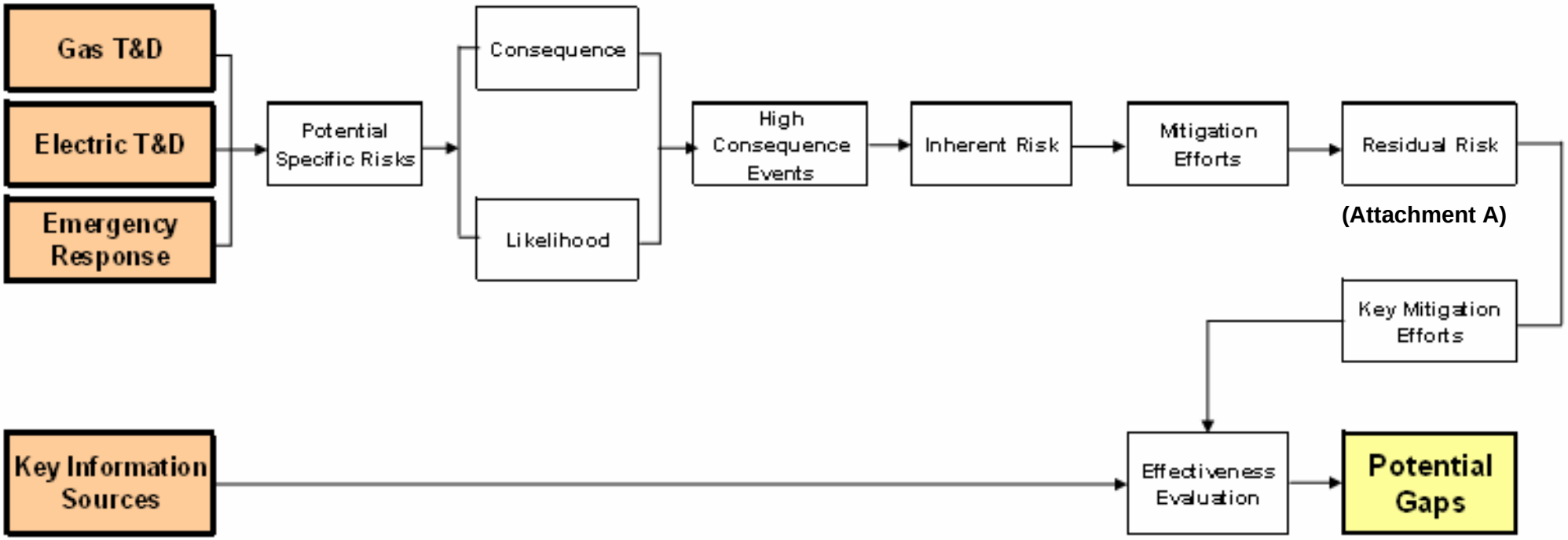
Risk Drivers – Emergency Response

- Lack of Available Response Personnel
  - personnel do not sign up for emergency call-out, unable to contact personnel on call-out list, or personnel refuse to work
- Failure of Technology
  - failed SCADA communication delays response, or radios don't work due to the impact of adverse weather conditions on repeaters
- Lack of Emergency Planning
  - emergency response plans not in place, personnel not trained on, or unfamiliar with, emergency response responsibilities, or contact information with outside agencies is out of date.
- Access to Trouble Locations
  - police prevent emergency response personnel from having access into an area, wildland fire prevents access to substations, or landslides and fallen trees block roadway.

Risk Drivers - Key Information Sources

- Internal/Operations
  - employee fails to complete a near miss report while using approved work procedure, thereby leaving risk unmitigated
- Law/Claims
  - several claims or suits are filed relating to a particular hazardous condition but the information is not analyzed, trended, tracked or disseminated to operations for mitigation
- Regulatory
  - supervisor fails to implement required safety reporting procedures after employee fatality due to fall from tower
- Employee
  - an employee has first-hand knowledge of a condition that poses a risk to employees and the public but does not report the issue
- Public
  - customer calls in a hazardous condition, but information is improperly analyzed and sent to the wrong organization
- Industry
  - the manufacturer of equipment provides an operating and maintenance manual to the company but there is no internal control for document retention and distribution of information thereby resulting in a hazardous condition; failure to properly install and maintain the equipment

Gap Assessment Process



Six questions asked to determine effectiveness of key mitigation efforts and information sources

- Documented process?
- Event evaluation/analysis?
- Event trending?
- Disseminated to operations?
- Process tracked?
- Process regularly re-evaluated?

Two Key Revelations From Risk Analysis

- Analyzing how PG&E processes Key Information Sources is extremely valuable to mitigate system risks
- To mitigate the gas and electric T&D risks identified in this assessment, we need to apply our Internal Audit and Quality Assurance efforts to those processes we rely on.

Context

- PG&E manages its gas and electric transmission and distribution systems through the application of multiple programs and processes. In many instances, those programs and processes exceed industry standards. The focus of this risk assessment was to identify the processes we rely on to manage our systems, and evaluate the effectiveness of those processes. The analysis was performed by a small group of subject matter experts. This analysis and the results require further validation and review prior to the development of a course of action.

Additional Planned Risk Management Activities Overview

- Most additional planned activities fit into one of ten categories:
  - Data management, trending and sharing
  - Enhanced or improved training
  - Improved oversight
  - Improved cooperation between departments
  - Emergency plans and drills
  - Enhanced communication efforts
  - Modified documentation
  - Modified work methods
  - Addressing non-compliance
  - Enhanced staffing/staffing scheduling
- A work plan will be established in 1Q 2007 to establish target dates and budget estimates for planned activities

Additional Planned Risk Management Activities
Risk Families – Gas and Electric T&D

Risk Drivers	Potential Gaps	Potential Activities
Design and **Excavation Damage**	**Overall analysis of possible failure modes and hazards for equipment may be inadequate** Examples: • Catastrophic equipment failure in high density areas • Multiple car pole incidents at the same location • Contribution of mark and locate equipment limitations to dig in frequency	**Reduce Design and Excavation Damage risk by:** 1. Developing a comprehensive Failure Modes Effects Analysis program for equipment failures and incidents that will guide work procedure modifications, equipment replacement, inspections and audits 2. Developing asset registry to capture critical information for analysis and trending (e.g. location history files, historic data of manufacturer's equipment maintenance recommendations) 3. Developing a process to trend, analyze failures/incidents and take action to address high risk issues.

Additional Planned Risk Management Activities
Risk Families – Gas and Electric T&D (2)

Risk Drivers	Potential Gaps	Potential Activities
Maintenance and **Management Decisions**	**Incomplete follow through on recommendations or program commitments** Examples: • Indoor substation fire protection program • Deteriorated / damaged assets leading to public shock hazard: 1. Bare secondary wire 2. Primary neutral • Gas meter protection	**Manage full completion of recommendations and programs by:** 1. Developing database for tracking program recommendations, scope and regulatory commitments 2. Monitoring scope and progress 3. Documenting concurrence of all scope or schedule changes

Additional Planned Risk Management Activities
Risk Families – Gas and Electric T&D (3)

Risk Drivers	Potential Gaps	Potential Activities
Construction and **Maintenance**	**Actual practices may not comply with existing standards and process requirements** Examples: • Lack of maintenance and timely de-energizing of idle lines could result in electric contact • Gas service bored through sewer/storm drain laterals	**Improve compliance by:** 1. Supporting on-going Compliance Risk Assessment and ensure follow through with recommendations 2. Monitoring implementation of new/high risk standard requirements 3. Performing QA audits on high risk standard/process requirements 4. Reducing complexity of standards 5. Educating maintenance and construction personnel by re-enforcing high risk standards/process requirements and testing for understanding

Additional Planned Risk Management Activities
Risk Families – Emergency Response

Risk Drivers	Potential Gaps	Potential Activities
Lack of Response Personnel	**PG&E personnel unavailability for emergency response may increase damages and public safety risk** Examples: • Personnel may not be available to take emergency calls from public agency and customers • Personnel may not be available to respond to safety hazard	**Enhance personnel availability by:** 1. Increase the coverage of field personnel in locations where operational and emergency response needs have been identified. Increase staffing on swing/grave yard and weekend shifts. 2. Increase the deployment of SCADA technology to give further control of the gas and electric systems to existing 24x7x365 control center personnel (gas & electric). 3. Change Union contractual agreements to modify and enhance the current call-out requirements/obligations
Lack of Emergency Planning	**Emergency plans may not exist or may not be sufficiently comprehensive** Examples: • Inadequate coordination with local agencies to ensure adequate access to trouble locations • There may be no response plans to some types of emergency events	**Enhance emergency plans** Continue to work with local emergency agencies (local OES's, police, fire departments, etc.)

Additional Planned Risk Management Activities
Risk Families - Key Information Sources

Risk Drivers	Potential Gaps Sources with ineffective or partial processes but high value potential	Potential Activities
Internal/Operations	• Construction Standards/Feedback Loop • Event/Close Call/Near Miss Reports (UO Std 1465) • SH&C Near Miss Reporting Procedure (SH&C Procedure 208)	• Establish Multi Organization Team(s) to review, analyze and consolidate processes; train employees; and assign a process champion
Law/Claims	• Claims • Litigation • Event reports on field incidents that result in damage or claims	• Formation of a Law Dept. team to analyze, trend, track safety risks and disseminate information to operations for risk mitigation
Employee	• Institutional Knowledge • Compliance and Ethics Helpline	• Knowledge management initiative to identify, preserve and centralize data and records relevant to inherent risks • Campaign initiative to expand awareness and use
Industry	• Manufacturer Information • Industry Associations	• Knowledge management initiative to identify, preserve and centralize data and records relevant to potential risks; and disseminate information

Attachment A

Risk Drivers and Mitigation Measures

ERM - Safety - Gas T&D Design and Operations

Legend:

H – High
M – Medium
L – Low

S – Strong
A – Acceptable
W – Weak

	Pgm (P) Info (I)		Mitigation Efforts	Threat Families	Operations or Maintenance				Design	Material & Equipment						Construction	Corrosion					Excavator Damage				Ground Movement		Other Outside Force	Mgmt Decisions	Gas Quality	
				Potential Specific Threats	Insufficient Personnel Failure to follow practices Inadequate Safety Practices Inadequate Oper. Practices Opn impact to environment Inadequate training Inadequate Maintenance Human Operating Error				Deficient historical practices Missing Records Lack of expertise Inadequate Training Outdated Standards	Time dependent degredation Manufacturing Issues Mis-application Major Station Incident Material degredation (copper, CI, Aldyl A)						Deficient historical practices Not following standards Poor App. Inst. QC Risk inherent practices	Mis-graded leak Inadequate CP Known corrosion defects Unprotected steel pipe High leak history Known AC/DC interference Condensate release Liquid from gas producers Biocide health concerns Inadequate analysis					Inadequate practices Inexperienced personnel Untimely Response Failure to follow practices Tool deficiencies Incomp/erroneous mapping				Un-restrained comm. mtrs Erosion around pipelines Landslides (177A) Station piping design/maint Seismic response preparedness Fault crossings River crossings		Inadequate facility protection Levee failure Inadequate facility security	Mitigation pgms not completed Incorrect Funding Decisions	BTU excursions Health hazard in gas Damage to existing facilities	
				High Consequence Events (Examples)	Operating practices create environmental impact	Inadequate coordination with local First Responders leads to inadequate response after a significant event	Operations or Controller error results in major outage	Operator error over-pressurizes low pressure system	Lack of engineering or operational technical expertise may grow as workforce retires and lead to inadequate design or incident response	Transmission rupture causes fatalities	Transmission rupture causes major outage	Station incident causes fatalities	Station incident causes major loss of service	Distribution leak causes fatalities	Unknown material problems create safety issues	Directional drilled service installation through a sewer lateral causes fatalities	IC rupture causes fatalities	IC rupture cause major outage	EC rupture causes fatalities	EC rupture causes major outage	EC leak causes fatalities	"At fault" trans. causes fatalities	"At fault" dsbn. causes fatalities	"At fault" trans. major outage	"At fault" dsbn. major outage	Seismic response inadequate	Rupture causes major outage	Vandalism causes major outage	Fatality associated with incomplete follow through on a mitigation program	Gas quality has significant health impact	Gas quality has significant equipment impact
				Inherent Likelihood	M	M	M	H	M	M	M	L	M	H	M	M	L	L	H	M	H	H	H	M	M	M	M	M	L	M
Distribution Focused	I	1	Gas Dsbn Internal Gas Incident Review			W	A	A						W								W							W		
	P	2	GPRP											S						A									S		
	P	3	Copper Service Replacement Program											A						A									A		
	P	4	Atmospheric Corrosion Program											W						W									S		
	P	5	Isolated Svcs Program											S						A									S		
	P	6	CP Re-survey Program											A						A									W		
	P	7	Meter Protection Program											W								A							S		
	P	8	Reg. Station Maintenance					A																					A		
	P	9	First Responder Training Program					W																							
	P	10	Annual Relief Valve Calculation Review					A																					A		
	P	11	Gas Dsbn Integrity Mgmt Program	Not implemented yet										S						W									S		
Gas Transmission Focused	I	12	GIS Risk reports							W								A	W												
	I	13	Pipeline Patrols							A							A	A	A	A		W		W		A	A	A			
	I	14	Delta Risk Committee																			W		W		W	W				
	I	15	Seismic Risk Manual																							A	A				
	I	16	Failure Analysis reports							W																					
	I	17	Gas Transmission Incident Reports			W			W	W	W	W	W				W	W	W	W		W		W							
	P	18	USGS Shake Map/Scenarios							A																A	W				
	P	19	Gas Trans Integrity Mgmt Program			W			W	A	A						A	A	A	A		A		A		W	W		S		
	P	20	Gas Transmission Risk Mgmt Program						W	A	A						A	A	A	A		W		W		A	A	W	A		
	P	21	Density Surveys							W							A	A	A	A							A				
	P	22	First Responder Training Program			A																									
	P	23	Transmission erosion program							W																	A				
	P	24	Internal Corrosion Program							W							A	A													A
Dsbn & Trans Focused	I	25	Leak Reports/IGIS											A			W	W	W	W	W	W	A	W	A			S			W
	I	26	Dig-in Overview Report							W												W	W	W	W			W			
	I	27	A1 Form																			W	A	W	A						
	I	28	GSR/Meter Reader Observations											S																	
	I	29	GSR response to customer leak notification response					A						A							S		A		A						
	I	30	DIRT																				S		S						
	P	31	RP 1162 - Pipeline Public Information Program			W													W			A	S	A	S						
	P	32	Shutdown zones								W															W	W				
	P	33	Odorization											A			A	A	A	A	A		S		A	W		A			
	P	34	Supervisor in the field				A	A		W											A	W	A	W	A				A		
	P	35	Cathodic Protection Program								S			S			A	A	A	A	A										
	P	36	Controller Certification				A	A		A																					
	P	37	Operator Qualification (PG&E/Contractor)				W	A			A	A		A	W				W		W	W	A	W	A							
Station Focused	I	38	CBM data										S	S																	
	P	39	Operating Procedures		S					A				A																A	A
	P	40	Facility Security Program																								A		S		
	P	41	Automated Control/Shutdown systems							A			S	S															S	S	
Mitigations shared by all	I	42	Benchmarking		W									S						A		S		S				S		
	I	43	Consultant reviews and reports												W																
	I	44	Technical Journals												W																
	I	45	Manufacturer Problem Notifications												W																
	I	46	Material Problem Reports (MPRs)											S	W														W		W
	I	47	Near Miss Reports				S	S			W	W					W	W	W	W			S		S				S		
	I	48	Stats from Safety Health and Claims																				S		S						
	I	49	Industry involvement		A					W	W	W		S									S		S		W		S		S
	I	50	Internal Audit/Review processes		A			A						A						A			A		A				S	S	A
	I	51	CPUC Audits								A	A																	A		
	I	52	SCADA				S	A		A		W		S					A					A		A	A	S		S	
	I	53	GIS							W	A	A			W			A		W		W		W							
	I	54	Field feedback loop				S	S			W	W			S		W	W	W	W			A		A				W		
	I	55	New Product Testing Program (TES)											S	A	W															
	I	56	QA (Inspection, Acceptance Testing)																												
	I	57	R&D involvement																												
	I	58	Technical Information Library							A																					
	I	59	Const. Stds/Const feedback loop													W															
	P	60	Leak Survey/Repair											S			S	S	S	S	A										
	P	61	Proper and Full Program Implementation							A	A	A	A	A			W	W											A		
	P	62	Training				S	A		W				S					A	S	A		S		S						
	P	63	Operating Procedures							W																					
	P	64	Design standards					A		A																S	A				
	P	65	Maintenance Management/Execution								A	A	A	A	S		A	A	A	S	W	S	S	S	S				S		
	P	66	Clearance process/training				W	A		A			A																		
	P	67	Apprenticeship Program				S	S		W					A				W		W										
	P	68	Emergency Plan			W								A												A	A	A			
	P	69	Safety Program		A			A			A	A									A	A	A	A				A			
	P	70	Retirement Planning							W																			W		
	P	71	Disciplinary process				W	A															A		A						
	P	72	Design standardization/Standard units							W																					
	P	73	Design/Standard exception process								W	W																			
	P	74	USA																		S	S	S	S							
	P	75	Standby during excavation																		S	S	S	S							
	P	76	Damage Prevention Program																		A	S	A	S							
	P	77	PSIP Program																		A	S	A	S							
	P	78	Seismic Safety Committee																						S	S					
	P	79	Life Cycle Requirements																												
	P	80	Optimizer																W		W							W			
				Mitigated Likelihood	L	M	L	L	M	L	L	L	M	M	L	M	L	L	M	L	M	M	M	L	L	M	H	L	M	L	L

ERM - Safety - Electric T&D Design and Operations

Legend

H = high
M = medium
L = low

S = strong
A = acceptable
W = weak

Risk Drivers	Operations or Maintenance					Design			Material & Equipment					Construction		Ground Movement	Other Outside Force				Management Decisions
Potential Specific Threats	Insufficient Personnel Failure to follow practices Inadequate Safety Practices Inadequate Oper. Practices Opn impact to environment Inadequate training Inadequate Maintenance Human Operating Error Incorrect/insufficient Funding Facilities not patrolled/inspected Conditions not corrected Procedures not documented Lack of defined roles Limited info gathered to assess asset life No measurable indicators Lack of QA/QC on compl. work Repetitive errors/events					Deficient historical practices Missing Records Lack of expertise Inadequate Training Outdated Standards Lack of latest industry info Diff. conditions not considered Eng/est misinterprets stds. Conflict in documents Lack of QA/QC for spec/design/job Problems not tracked Info gathered is not analyzed Asset life not adequately considered Lack of proper prioritization			Time dependent degredation Manufacturing Issues Misapplication Major Station Incident Material Defect					Deficient historical practices Not following standards Poor App. Inst. QC Risk inherent practices Worker not trained properly Inc. job/operating instructions Improper interpret. of requirement Lack of QA/QC on completed work Improper substitution Carelessness Poor Workmanship		Seismic design preparedness	Car pole Metallic objects in OH Inadequate facility security Dig in				Mitigation pgms not completed Incorrect Funding Decisions Lack of accountability Lack of training/knowledge Improper/inconsistent instruction Lack of measurable indicators Lack of QA Info gathered is not analyzed No plan to review risks Not matching personnel to work Improper prioritization
High Consequence Events (Examples)	Incident occurs due to lack of patrol or inspection	Identified problem is not corrected and results in an incident	Idle facility causes incident	Improper relay setting results in incident	Operational error results in an incident	Approval of inadequate/substandard equipment/material results in an incident	Increased conductor load results in contact due to sag	500kV multiple tower failure	Failure causes major outage of transmission or substation	Defective equipment/material wth potential to cause repeating incidents	Substation oil leak/fire results in incident	Structure deterioration results in incident	Unknown material problems	Poor workmanship causes incident	Non Conformance to standards causes incident	Unrestrained equipment causes major outage	Repeated car pole at same location	Inadequate tower guarding contributes to incident	Non-recognition of high voltage risk/danger by public	Dig in to underground cable	Major incident with incomplete follow through on a mitigation program
Inherent Likelihood	H	H	H	H	H	M	M	H	H	H	M	H	H	H	H	H	H	H	H	H	H
Mitigation Efforts																					
Key Programs: Patrol and Inspection (D)	S		A			A			S	S					W		W		A	W	A
Patrol and Inspection (T)	S		A			A	S	S	S	S		S			W		W	S	A	W	A
Infrared Inspection (D)	S									A				A	A						W
Infrared Inspection (T)	A																				W
Equipment Testing	A			S	A	A			A	A				A	A						W
EPCM Notification Work		S	S							S					A				A		W
ETPM Notification Work		S	S							S		S			A				A		W
Pole Test and Treat	S									S		S									S
Pole Replacement		A								A		S									A
Network Transformer Oil Test										S				A							S
Network Transformer Pressure Test										S				A							S
Cable Replacement		A																			A
Idle Facilities (D)	W	W	W																		W
Idle Facilities (T)	A	A	A																		A
Outage Review Process						A									W		W				A
Reliability/Capacity						S			S												A
Station Inspection	S	S							S		S	S	S								S
Steel Structure Replacement												S				A					A
Street Light Maintenance										A											W
Primary Neutral System Assessment	A	A				A									A						W
Fire Protection Strategy											A										A
Insulator Cleaning (T/D)		W							W												W
Insulator Cleaning (S)		S							S												A
Vegetation Management	S	S					S														S
Key Sources of Information: Const. Stds/Const feedback loop						S			S	S		S	S		A						
Dart/C-EDSA																	W				
ECCO Monthly Event Report (S1465)					A				A	A		A									W
ECCO Scheduling Logging Intertie California (eSLIC)																					
Failure Analysis												S	A	A	A						
Field feedback loop						S			S	S		S	S								A
Geographic Information System (GIS)					S					W							W	A			
Inspection of Third Party Installations														W	A						
Insurance Reports																					
Integrated Logging Information System (ILIS)										W			W				A				
Internal Auditing																					A
Material Problem Reports (MPRs)						A			A	A			A	A	A						W
New Product Testing (TLS)						A			A												
Reviews / Audits / Assessments	A	S													W						
SCADA					A																
SH&C Near Miss Reports	A	A			A	A															S
CDF citations							S														
Claims	A	A				A								A	A				W		
Legal Function																	A	A	W		S
Local Law Enforcement																	W	A	W		
Riskmaster Event Reports			W			W				A			W				A				
CPUC Reports	A	A				A						S	S		A			A			S
Environmental Spill Reports	A	A																			
FERC																					W
Incident Reports - CPUC/D.O.T.																	W		W		A
Independent System Operator (ISO)					A							S									
Regulatory Audits	A	A			A																A
Reportable Workplace Injuries (Cal/OSHA, CPUC)																					W
Compliance & Ethics Hotline (Safety Issues)																					W
Employee Forums, e.g. PG&E Tomorrow																					
Institutional Knowledge						W															
Community Forums																					W
Customer Complaints																					A
J.D. Power Surveys																					
Media Reports: Radio, Newspapers, TV																					
Shareholder Meetings																					W
Benchmarking						A															
External Assessments	A																				A
Industry Associations - Electric						S							A								S
Manufacturer Problem Notifications										A											
Technical Journals						A				W			W								
Other Processes, Programs, etc: Proper and Full Process Implementation	S	S																			A
Apprenticeship Program		S			A									S	S						
Training (Initial and Annual Refresher)		S		S	S	S			S	S		S	S	S	S		W				
Supervisor in the Field					A									A	A		W				A
Operating Procedures		S		S	S	A															
UO Standards/Guidelines/Bulletins				S				S			S	S		S	S	A	W	S		S	S
Design standards							S	S		S	S			S	S	S	W	S			
OM&C Work Procedures	A											S		S	S						
Maintenance Management/Execution/Standards	S	S		S	S	A		S							A						
Clearance process/training				S	S																
Safety Program	S	A		A	A	A						S		A	A						A
Disciplinary process	A	A		A	A									W	W						
R&D involvement						A															
Planning, Estimating, Mapping Process			W				A								S		W				
Technical Information Library						A								A	A.						
Design standardization/Standard units						A									A.	S					
USA																				S	
Stand by during excavation (T)																				S	
Optimizer																					W
Program Management	S	S	W								S		A					A		S	S
QA (Compliance Audit)	A	A				A									A						A
Pre/Post Job Checklist		A												A	A						
QC Work Verification		A												A	A						
Connector Replacement	S	S				A				S				A	A						
Old Insulator Replacement										A											
Manufacturer Evaluation / Plant QC Check						A				A											
Supplier Quality Incoming and Accept. Inspect.									A	S											
Line Surveying							S														
Pole Location Guide																	W				
Public Education, Bill Inserts, etc																			W	A	
Mitigated Likelihood	L	M	M	L	M	L	L	L	M	M	M	L	M	L	M	M	H	L	H	M	M

ERM - Gas & Electric T&D Safety - Emergency Response

	Threat Families		Lack of Available Response Personnel					Failure of Technology			Lack of Emergency Planning				Access to Trouble Location (De-energize)			
	Specific Threats		People do not sign-up for call out Unable to contact people signed up on call out list.					SCADA communication does not work. Phones overloaded during earthquake Radio repeaters fail due to adverse weather.			ER Plans not in place. Personnel not familiar with ER responsibilities. Contact information with outside agencies is out of date.				Police prevents access to site. Wildland fire prevents access to substation. Landslides take out roadway.			
	High Consequence Events		Lack of Troublemen	Lack of Electric Crews	Lack of Substation Personnel	Lack of Gas Servicemen	Lack of Gas Crews	Failure of SCADA	Failure of Telephones	Failure of Radios	Lack of Emergency Plans	Lack of ER Training	Lack of Agency Coordination	Lack of Timely Notification to PG&E	Road Closures	G & E Distribution Facilities	Substation Facilities	G & E Transmission Facilities
	Mitigation Efforts	**Inherent Likelihood / Risk**	H	M	M	M	M	M	M	M	H	H	H	H	H	H	H	H
1	Resource Staffing Plans		A	A	A	A	A				A	W						
2	Rotating Shifts/ 24X7X365 Coverage (Call Centers/Control Centers)													S				
3	Emergency Call Out Procedures (Union Contract)		A	A	A	S	A				A							
4	Back-up Communications Systems (Radios, Phones)							W	S	S				S				
5	Electric Emergency Plan (EEP)		S	S	S						S	W	S	S	A			
6	General Order 166										A	A	A	A				
7	QAS Standards										A	A	A	A				
8	Operating Procedures (Fire Index Areas)										A		A					
9	Operating Procedures (S1466 & S1402)							A	A	A	A	A			A	A	A	A
10	Emergency Plans submitted to CAISO													A				
11	Coordination with Local Agencies										S	A	S	S	S			
12	Coordination with Local Media										A	A	A	A	A			
13	Operation of Protective Relays / SCADA Control		A	A	A			A	A	A				S	A	A	A	A
14	Back-up Generators																	
15	Gas Emergency Plans					S	S				S	S	S	S	A			
16	Emergency Shut-off Valves					A	A							A				
17																		
18																		
19																		

Assessment of Effectiveness of Mitigation
Action to the Risk Issue
S - Strength; A - Acceptable; W - Weakness

Mitigated Likelihood / Risk		H	M	L	L	L	M	M	M	M	H	L	L	M	M	M	M	
Overall Residual Risk		M					M			M				M				

H - High Risk; M - Medium Risk; L - Low Risk

Attachment B

Effectiveness Evaluation

Attachment B

Evaluation of Gas T&D Program Effectiveness

Row	Key Programs	Documented Process? (Standard or Code ref.)	Evaluation & analysis of each event performed?	Trending of the data performed?	Disseminated to Operations?	Is the process tracked?	Is the process regularly re-evaluated?	Effectiveness	Value
2	GPRP	Y	Y	Y	N	Y	Y	A	H
3	Copper Replacement Program (subset of GPRP)	Y	Y	Y	N	N	N	A	H
5	Isolated Svcs Program							W	L
6	CP Re-survey Program							A	L
8	Annual Reg Stn Maintenance	Y	Y	N	N	N	N	A	H
9	Distribution First Responder Training	N	Y - Tabletop	N	Y	Y	N	W	H
10	Annual Relief Calculations	Y	Y	N	N	N	Y	A	H
11	Gas Dsbn Integrity Mgmt Program								
18	USGS Shake Map/Scenarios	RMI-04??	Y	No	Y (pending)	Y	?	S - Transmission only	M
19	Trans. Int. Mgmt	Y - RMP-06	Y	Y	N	Y	Y	A	H
20	Gas Trns Rsk Mgmt Prg	Partly Y-RMP-01	Y	Y	N	Y	Y	A	M
23	Transmission erosion program	N	Y	N	N	Y	N	A	M
24	Internal Corrosion Prgm	Partly Y-RMP-10 (pending)/ RP 4332-Removal and Control of liquids from Gas Pipelines etc…	Y	Y	No for RMP-10/Yes for RP 4332	Y	Y	W (still being developed-once done, A for xmission lines)	M
32	ShutDown Zones	S5000	N	N	Y	?	Y	W	M
33	Odorization	S-4350	Y	N	Y	Y	Y	S	H
35	Cathodic Protection Program	Gas Std O-16	N	N	Y	Y	Y	S	H
36	Controller Certification	Y	Y	Y	N	Y	Y	A	H
37	Operator Qualification (PG&E/Contractor)	Y	Y	Y	Y	Y	N	W	M
38	CBM Data	Y - Documented Program (no std)	Y	Y	Y	Y	Y - ongoing by CBM supervisor	S - limited to gas compressors	H
39	Operating Procedures	Y	N/A	N/A	Y	N/A	Y - informal	A	H
40	Facility Security Program	Y - S4050	Y	N	Y	N/A	Y	A	M
41	Automated Control/Shutdown systems	Y - Control Philosophy Document	Y	Y - for compressor shutdowns	Y	N	Y - as part of project eng process	S	H
60	Leak Survey & Repair	S-4110	Y	Y	Y	Y	Y	S	H
61	Proper and Full Program Implementation							A	H
62	M&C Apprenticeship	Y	Y	N	N	N	Y	A	H
63	Operating Procedures		Y		Y		Y	A	H
64	Design standards		Y		Y	Y	Y	A	H
65	Maintenance Management/Execution		Y	N	Y	Y	Y	A	H
66	Clearance process/training		Y	N	Y	Y	Y	A	M
67	Apprenticeship Program							A	M
68	Emergency Plan		Y	Y	Y	Y	Y	A	H
73	Design Standard Exception Process	Exists for joint trench-Don't know if anywhere else	Y	N	Y	Y	Y	W (little trending or tracking of data so we can't say where all the exceptions are)	M
74	USA	Y-S4412	N	N	Y	Y	Y	S	H
75	Standby During excavaton	Guideline 11413	N	N	Y	Y	Y	S	H
76	Damage Prevention Program	N	N	Limited	Limited	N	N	W	H

Attachment B

Evaluation of Electric T&D Program Effectiveness

Key Programs	Process	Documented	Risk Evaluation & Analysis	Risk Trending	Disseminated to Operations	Process Tracking	Process Evaluation	Effectiveness of Process	Value of Process
Patrol and Inspection (D)	Yes	S2301	Yes	No	Yes	Yes	Yes	Strong	High
Patrol and Inspection (T)	Yes	S1001	Yes	No	Yes	Yes	Yes	Strong	High
Infrared Inspection (D)	Yes	G12022	Yes	No	Yes	Yes	Yes	Acceptable	High
Infrared Inspection (T)	Yes	ETPM Manual	Yes	No	Yes	Yes	Yes	Acceptable	High
Line Equipment	Yes	S2302	Yes	No	Yes	Yes	Yes	Acceptable	High
EPCM Notification Work (D)	Yes	S2301	Yes	No	Yes	Yes	Yes	Acceptable	High
ETPM Notification Work (T)	Yes	S1001	Yes	No	Yes	Yes	Yes	Acceptable	High
Pole Test and Treat	Yes	S2325	Yes	No	Yes	Yes	Yes	Strong	High
Pole Replacement	Yes	S2325	Yes	No	Yes	Yes	Yes	Acceptable	High
Network Transformer Oil Test	Yes	Being Drafted	Yes	Yes	Yes	Yes	Yes	Acceptable	High
Network Transformer Pressure Test	Yes	Being Drafted	Yes	No	Yes	Yes	Yes	Acceptable	High
Cable Replacement	Yes	S0406	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Idle Facilities (D)	Yes	S2459	Yes	No	Yes	Yes	Yes	Weak	Medium
Idle Facilities (T)	Yes	S1003	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Outage Review Process	Yes	S2010	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Reliability/Capacity	Yes	S0460	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Station Inspection	Yes	Sub. M&C Manual	Yes	No	Yes	Yes	Yes	Strong	High
Steel Structure Replacement	Yes	IB0205	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Street Light Maintenance	Yes	S2309	No	No	Yes	Yes	No	Weak	Low
UG on Radial PN Taps	Yes	IB2003-10B	Yes	No	Yes	Yes	No	Acceptable	High
Fire Protection Strategy	Yes	G13181	Yes	No	Yes	Yes	Yes	Acceptable	High
Insulator Cleaning (T/D)	Yes	S2404	No	No	Yes	Yes	No	Weak	Medium
Insulator Cleaning (S)	Yes	S2405	No	No	Yes	Yes	No	Strong	High
Vegetation Management	Yes	Department	Yes	No	Yes	Yes	Yes	Strong	High
Other Processes, Procedures, etc									
Proper and Full Process Implementation	No	No	No	No	No	No	No	Acceptable	High
Apprenticeship Program	Yes	HR	No	No	No	Yes	Yes	Acceptable	High
Training (Initial and Annual Refresher)	Yes	HR	No	No	No	Yes	Yes	Acceptable	High
Supervisor in the Field	No	Yes	No	No	No	No	No	Acceptable	High
Operating Procedures	Yes	S1466	Yes	No	Yes	No	Yes	Acceptable	High
UO Standards/Guidelines/Bulletins	Yes	S0500	No	No	Yes	No	Yes	Acceptable	High
Design standards	Yes	Manuals	No	No	Yes	No	Yes	Strong	High
OM&C Work Procedures	Yes	OM&C Manual	No	No	Yes	No	Yes	Strong	High
Substation M&C Procedures	Yes	Sub. M&C Manual	No	No	Yes	No	Yes	Strong	High
Maint Management/Execution/Standards	Yes	O&M Manuals	No	No	Yes	No	Yes	Strong	High
Clearance process/training	Yes	S1403	Yes	No	Yes	Yes	Yes	Acceptable	High
Safety Program	Yes	USP22	No	No	Yes	No	No	Acceptable	High
Disciplinary process	Yes	HR	No	No	No	No	Yes	Acceptable	Medium
R&D involvement	No	No	No	No	No	No	No	Weak	Low
Planning, Estimating, Mapping Process	No	No	No	No	No	No	No	Acceptable	Medium
Technical Information Library	Yes	TDM	No	No	Yes	Yes	Yes	Acceptable	Medium
Design standardization/Standard units	No	No	No	No	Yes	Yes	No	Acceptable	Medium
USA	Yes	S4412	No	No	Yes	Yes	Yes	Strong	High
Stand by during excavation (T)	Yes	Yes	No	No	No	Yes	No	Strong	High
Optimizer	Yes	Yes	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Program Management	Yes	Yes	Yes	No	Yes	No	Yes	Acceptable	High
QA (Compliance Audit)	Yes	S2000	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Pre/Post Job Checklist	Yes	IB 2005-19	No	No	Yes	No	No	Weak	Medium
QC Work Verification	Yes	IB QA1-2005	No	No	Yes	No	No	Weak	Medium
Connector Replacement	Yes	Doc.028852	No	No	No	No	No	Acceptable	High
Old Insulator Replacement	Yes	Doc. 022088	No	No	No	No	No	Acceptable	Medium
Manufacturer Evaluation / Plant QC Check	No	No	Yes	Yes	Yes	Yes	No	Acceptable	Medium
Supplier Quality Incoming and Accept. Inspect.	Yes	SQI Dept	Yes	No	Yes	Yes	Yes	Acceptable	Medium
Line Surveying	No	No	Yes	No	Yes	No	No	Strong	High
Pole Location Guide	Yes	Est. Design Manual	No	No	Yes	No	No	Weak	High

Public Education, Bill Inserts, etc	No	No	No	No	No	No	No	Weak	Medium

Attachment B

Evaluation of Emergency Response Program Effectiveness

Row	Key Programs	Documented Process? (Standard or Code ref.)	Evaluation & analysis of each event performed?	Trending of the data performed?	Disseminated to Operations?	Is the process tracked?	Is the process regularly re-evaluated?	Effectiveness	Value
1	Resource Staffing Plans	No	Yes	No	Yes	Yes	Yes	Acceptable	High
2	Rotating Shifts/ 24X7X365 Coverage (Call Centers/Control Centers)	Yes	No	No	Yes	Yes	Yes	Acceptable	High
3	Emergency Call Out Procedures (Union Contract)	Yes / Union Contract	No	No	Yes	Yes	Yes	Acceptable	High
4	Back-up Communications Systems (Radios, Phones)	No	Yes	No	Yes	Yes	Yes	Weak	Medium
5	Electric Emergency Plan (EEP)	Yes	Yes	Yes	Yes	Yes	Yes	Acceptable	Low
6	General Order 166	Yes / GO 166	Yes	Yes	Yes	Yes	Yes	Acceptable	High
7	QAS Standards	Yes	No	Yes	Yes	No	Yes	Acceptable	Low
8	Operating Procedures (Fire Index Areas)	Yes	No	No	Yes	No	No	Acceptable	Low
9	Operating Procedures (S1466 & S1402)	Yes	Yes	Yes	Yes	Yes	Yes	Acceptable	Medium
10	Emergency Plans submitted to CAISO	Yes	Yes	Yes	Yes	Yes	Yes	Acceptable	Low
11	Coordination with Local Agencies	Yes	No	No	Yes	No	Yes	Weak	High
12	Coordination with Local Media	Yes	Yes	No	No	No	Yes	Weak	Low
13	Operation of Protective Relays / SCADA Control	Yes	Yes	Yes	Yes	No	No	Acceptable	High
14	Back-up Generators	No	No	No	No	No	No	Weak	Medium
15	Gas Emergency Plans	Yes	Yes	No	Yes	Yes	Yes	Acceptable	High
16	Emergency Shut-off Valves	Yes	No	No	Yes	Yes	Yes	Acceptable	High

Evaluation of Key Information Source Effectiveness

	Sources	Process	Documented	Process Champion	Event Evaluation & Analysis	Risk Trending	Disseminated to Operations	Process Tracking	Process Evaluation	Effectiveness of Process	Value of Process
Internal / Operations	**A1 - Dig-in Forms**	Yes	UO Std. 4110	Chris Warner	Somewhat	No	No	No	Yes	Weak	Low
	Construction Standards/Feedback Loop	Yes	DOCTr	Greg Thwing	No	No	Non-Standardized	Yes	No	Weak	Medium
	DART/C-EDSA	Yes	DART Manual	Ferne Collins	Yes	No	Yes	No	No	Weak	Medium
	Dig-in Overview Report	Yes	No	Dave Powell	Somewhat	Yes	Yes	No	Yes	Weak	Low
	ECCO Monthly Event Report	Yes	UO Std. 1465	Mike Malloy	Yes	Yes	Yes	Yes	Yes	Weak	Medium
	ECCO Scheduling Logging Intertie California (eSLIC)	Yes	SLIC User Manual	Mike Malloy	Yes	Yes	Yes	Yes	Yes	Acceptable	High
	Event/Close Call/Near Miss Reports-Electric	Yes	UO Std. 1465	Mike Malloy	Yes	Yes	Yes	Yes	No	Weak	High
	Failure Analysis	No	No	None	No	No	No	No	No	Weak	High
	Field Feedback Loop	No	No	None	No	No	No	No	No	Weak	Medium
	Gas Distribution Incident Reports	Yes	PUI Attachment 1	Boris Andino	No	No	No	No	No	Weak	Medium
	Gas Transmission Incident Reports	Yes	Gas Info Bulletin 199	Jeff Carroll	No	No	Yes	Yes	No	Acceptable	Medium
	Geographic Information System (GIS)	Yes	MapGuide	Susan Chwistek	Yes	No	Yes	Yes	Yes	Acceptable	Medium
	Inspection of Third Party Installations	Yes	Green Book; Exhibit 16	Project and Technical Services	No	No	Non-Standardized	No	No	Weak	Medium
	Insurance Reports	Yes	No	Hudson Martin	No	Non-Standardized	No	No	No	Weak	Medium
	Integrated Logging Information System (ILIS)	Yes	Operating Center Manual	Kathy Bradshaw	Yes	Yes	Yes	Yes	Yes	Acceptable	High
	Internal Auditing	Yes	Yes	Stephen Cairns	Yes	Non-Standardized	Yes-higher levels	Yes	External QA	Acceptable	High
	Leak Reports	Yes	UO Std. 4110	Pam Johnson	No	Yes	Yes	Yes	Yes	Acceptable	Medium
	Material Problem Reports (MPRs)	Yes	UO Std. 2333	Kevin Tasselmyer	Yes	Non-Standardized	Yes	No	No	Weak	High
	New Product Testing Program (TLS)	Yes	No	Dave Bradley	Yes	No	Indirectly	Yes	No	Strong	Medium
	Reviews / Audits /Assessments	Yes	Yes	Bob Daniels/Boris Andino	Yes	Yes	Yes	Yes	Yes	Acceptable	High
	SCADA, Gas and Electric	Yes	Various Emergency Plans	Gary Chrisco/Steve Calvert	Yes	Yes	Yes	Yes	Yes	Acceptable	High
	SH&C Near Miss Reports	Yes	SH&C Procedure 208	Scott Roesener	Yes	Yes	Yes	Yes	Yes	Weak	High
Law / Claims	**CDF Citations**	Yes	No	Lise Jordan	Yes	Yes	Yes	Yes	No	Acceptable	High
	Claims	Yes	No	Barbara Clement	Case-by-Case	Non-Standardized	Non-Standardized	Case-by-Case	No	Acceptable	Medium
	Litigation	No	No*	Stephen Schirle	Case-by-Case	Non-Standardized	Non-Standardized	No	No	Weak	Medium
	Local Law Enforcement	Yes	CMS	Michael Peterson	Yes	Yes	Yes	Yes	Yes	Acceptable	Medium
	Riskmaster Event Reports	Yes	No	Mark Sweeney	Case-by-Case	Yes	Yes	Yes	Yes	Weak	Medium
Regulatory	**CPUC Reports**	Yes	Yes	Bob Daniels/Boris Andino	Yes	Yes	Yes	No	Yes	Acceptable	Medium
	Environmental Spill Reports	Yes	Yes	Rex Bell	Yes	Yes	Yes	Yes	Yes	Acceptable	Medium
	FERC	No	No	Stephen Metague	No	No	Non-Standardized	No	No	Weak	Low
	Incident Reports - CPUC/D.O.T.	Yes	UO Std. 4413	Boris Andino	No	No	Yes (high level)	Yes	Yes	Acceptable	Medium
	Independent System Operator (ISO)	Yes	M&O inspection processes	Gregg Lemler/Kris Buchholz	Yes	Yes	Yes	Yes	Yes	Acceptable	Medium
	Regulatory Audits	Yes	Yes	Bob Daniels/Boris Andino	No	No	Yes	Yes	Yes	Acceptable	Medium
	Reportable Workplace Injuries (Cal/OSHA, CPUC)	Yes	USP 22	Mark Hughes	Yes	Yes	Yes	No	No	Weak	Low
Employee	**Compliance and Ethics Helpline (Safety Issues)**	Yes	Yes	Ed Mah	Yes	Yes	Yes	Yes	Yes	Weak	Low
	Employee Forums, e.g. PG&E Tomorrow	No	No	None	No	No	Non-Standardized	No	No	Weak	Low
	Institutional Knowledge	Informal	No	Various	No	No	Non-Standardized	No	No	Weak	Medium
Public	**Community Forums**	No	No	None	No	No	No	No	No	Acceptable	Low
	Customer Complaints	Yes	Yes*	Lavern Mitchell	Yes	Yes	Yes	Yes	Yes	Acceptable	Medium
	J.D. Power Surveys	Yes		Al Torres	Yes	Yes	Yes	Yes	Yes	Acceptable	Medium
	Media Reports: Radio, Newspapers, TV	No	No	None	No	No	Non-Standardized	No	No	Weak	Low
	Shareholder Meetings	Yes	No	Corporate Secretary/Responsible Officer	No	No	Yes	No	No	Acceptable	Low
Industry	**Benchmarking**	No	No	Dan Pearson	No	No	No	No	No	Weak	Medium
	External Assessments	No	No	None	No	No	Non-Standardized	No	No	Weak	Medium
	Industry Associations - Electric	No	No	Various	No	No	Non-Standardized	No	No	Acceptable	Medium
	Industry Associations - Gas Pipeline	No	No	Various	No	No	Non-Standardized	No	No	Acceptable	Medium
	Industry Associations - Gas Station	No	No	Dan Menegus	No	No	No	No	No	Weak	Low
	Industry Intelligence	Yes	Yes	Julia Murphy	Yes	No	Yes	Yes	Yes	Acceptable	High
	Manufacturer Manuals	No	No	None	No	No	No	No	No	Weak	High
	Manufacturer Problem Notifications	No	No	None	No	No	No	No	No	Weak	Medium
	Technical Journals	No	No	None	Non-Standardized	No	No	No	No	Weak	Low

*** Process under design and implementation**

ENTERPRISE RISK MANAGEMENT COMMITTEE (ERM-C)
Meeting Minutes and Commitments

Meeting Date: January 26, 2007

Attendees:

Committee Members:	Peter A. Darbee Kent M. Harvey Christopher P. Johns Thomas B. King Bill T. Morrow Hyun Park	Standing Guests: Guests:	Hudson Martin Jon Frisch Jeff Butler, Energy Delivery Roy Kuga, Energy Supply Fong Wan, Energy Procurement Lise Jordan, Resource Strategy & Initiative Management Todd Strauss, Energy Policy, Planning & Analysis Martin Wyspianski, Renewable Supply

Absent: *None*

Agenda Topics:

1. ERM Status Update
2. Gas and Electric Transmission and Distribution (T&D) System Safety Risk
3. Natural Gas Supply Risk

The following is a summary of the Enterprise Risk Management Committee (ERM-C) meeting held on January 26, 2007.

1. ERM Status Update

A summary of the status of the risks being evaluated in the Enterprise Risk Management process was reviewed by Mr. Harvey and Mr. Martin.

2. Gas and Electric Transmission and Distribution (T&D) System Safety Risk

A discussion of the risk that a condition associated with the gas or electric transmission or distribution system could cause an event with significant safety risk to employees or the public was presented by Mr. Jeff Butler and Ms. Lise Jordan. In addition to the action items incorporated into the presentation materials (provided previously to participants), the following additional items were identified for the Gas and Electric T&D ERM Team's action:

Action Item: Acceleration of the "copper service initiative" is to be managed by Mr. Robert Howard under Mr. Butler's direction. Additional details about this initiative are to be presented to Mr. Darbee when they have been finalized.

3. Natural Gas Supply Risk

A discussion of the natural gas supply risk was presented by Mr. Wan, Mr. Kuga, Mr. Strauss and Mr. Wyspianski in executive session.